

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KIMIYUKI ITO, KEIICHI INAGAKI  
and TAKESHI ISHIDA

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Appeal No. 2004-2008  
Application No. 09/955,030

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ON BRIEF

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Before OWENS, DELMENDO and JEFFREY T. SMITH, ***Administrative Patent Judges.***

JEFFREY T. SMITH, ***Administrative Patent Judge.***

***DECISION ON APPEAL***

Applicants appeal the decision of the Primary Examiner finally rejecting claims 13 to 21 and 31 to 42, all of the pending claims. We have jurisdiction under 35 U.S.C. § 134.<sup>1</sup>

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<sup>1</sup> In rendering this decision, we have considered Appellants' arguments presented in the Brief filed March 3, 2003, and the Reply Brief filed July 16, 2003.

### **BACKGROUND**

Appellants' invention relates to a photosensitive member having a protective exterior surface layer containing tantalum doped tin oxide having a mean particle size of 0.3 to 1.0 micrometers. According to Appellants, the protective layer prevents damage to the photosensitive layer and improves durability. (Brief, p. 3). Claims 13 and 34, which are representative of the claimed invention, appear below:

13. A photosensitive member comprising:  
a photosensitive layer; and  
an exterior surface layer containing tantalum doped tin oxide having the mean particle size of 0.3 to 1.0 micro-meters.

34. A photosensitive member comprising:  
a substrate;  
a charge generating layer being formed on the substrate and containing an organic charge generating material;  
a charge transporting layer being formed on the charge generating layer and containing a charge transporting material and a first binder resin; and  
an exterior surface layer being formed on the charge transporting layer and containing tantalum doped tin oxide having the mean particle size of 0.3 to 1.0 micro-meters and a second binder resin.

### **CITED PRIOR ART**

As evidence of unpatentability, the Examiner relies on the following references:

Rokutanzono et al. (Rokutanzono)	5,008,172	Apr. 16, 1991
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Bergmann et al. (Bergmann)	5,571,456	Nov. 5, 1996
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Borsenberger, et al. (Borsenberger), "Organic Photoreceptors For Imaging Systems", New York, Marcel-Dekker, Inc. (1993), pp. 25-35, 289-296.

The Examiner rejected claims 13 to 21 and 31 to 33 under 35 U.S.C. § 103(a) as obvious over the combined teachings of Rokutanzono and Bergmann; and claims 34 to 42 under 35 U.S.C. § 103(a) as obvious over the combined teachings of Rokutanzono, Bergmann and Borsenberger. (Answer pp. 4 to 6).

### **OPINION**

We have carefully reviewed the claims, specification and applied prior art, including all of the arguments advanced by both the Examiner and Appellants in support of their respective positions. This review leads us to conclude that the Examiner's § 103 rejections are not well founded. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In*

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*re Piasecki*, 745 F.2d 1468, 1471-1472, 223 USPQ 785, 787-788 (Fed. Cir. 1984).

We will limit our discussion to claim claims 13 and 34, the only independent claims.

Rather than reiterate the conflicting viewpoints advanced by the Examiner and the Appellants concerning the above-noted rejections, we refer to the Answer and the Briefs

The subject matter of claims 13 and 34 require, *inter alia*, an exterior surface layer to contain tantalum doped tin oxide having a mean particle size of 0.3 to 1.0 micro-meters.

Appellants argue that a person of ordinary skill in the art would only use Ta-doped tin oxide in the manner disclosed in Bergmann and not in a protective layer for an electrophotographic photoconductor as disclosed in Rokutanzono. (Brief, pp. 7 and 8).

Rokutanzono, column 2, discloses the use of metal and metal oxide, as resistivity controlling agents, in the surface layer of photosensitive members was known by persons of ordinary skill in the art. Rokutanzono, discloses that having transparent protective layers is desirable.

Bergmann discloses a process for producing doped tin oxides that have desirable transparency, electrical conductivity and antistatic characteristics. (Col. 1, ll. 57-62). Bergmann discloses "[t]hin films or coatings containing electroconductive powders can also be used within polymer films or fibers, magnetic recording tapes, on work surfaces and in paints to impart electroconductive properties". (Col. 2, ll. 20-24). Bergmann does not disclose that the electroconductive powders can be used as a resistivity controlling agent.

We recognize that the Examiner asserts environmental benefits can be obtained by doping tin oxide with tantalum rather than antimony containing tin oxide. However, there is no indication that the specially formed Ta-doped tin oxide disclosed in Bergmann could have been surface treated as disclosed in Rokutanzono. (See column 2). Further, there is no indication what effects the specially formed Ta-doped tin oxide disclosed in Bergmann would have on the other properties of the protective layer of Rokutanzono. Thus, there is insufficient evidence to establish that the Ta-doped tin oxide disclosed in Bergmann would have been suitable for use as a resistivity controlling agent in the surface layer of the photosensitive member of Rokutanzono.

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The Examiner added the teachings of Borsenberger to the combination of Rokutanzono and Bergmann to reject the subject matter of claims 34 to 42. (Answer, pp. 5-6). The addition of the Borsenberger reference does not address the suitability of using a Ta-doped tin oxide as a resistivity controlling agent in the surface layer of Rokutanzono photosensitive member.

### **CONCLUSION**

The rejections of claims 13 to 21 and 31 to 33 under 35 U.S.C. § 103(a) as obvious over the combined teachings of Rokutanzono and Bergmann; and claims 34 to 42 under 35 U.S.C. § 103(a) as obvious over the combined teachings of Rokutanzono, Bergmann and Borsenberger are reversed.

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Based on our consideration of the totality of the record before us, we conclude that we cannot uphold the rejections of the claims presented on this record.

**REVERSED**

TERRY J. OWENS  
***Administrative Patent Judge***

ROMULO H. DELMENDO  
***Administrative Patent Judge***

JEFFREY T. SMITH  
***Administrative Patent Judge***

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